

Biology - FSC Part 1 Biology English Medium Chapter 2 Preparation

Q1. Differentiate between Nucleoside and Nucleotide.

Ans 1: Nucleoside : When nitrogen base and pentose sugar react it forms nucleoside.

Ans 2: Nucleotide: When nucleoside reacts with phosphate group it is called nucleotide.

Q2. Why lipids are considered as high energy molecules as compared to the carbohydrates.

Ans 1: Lipids are also used to store energy e.g triglyceride. Because of high proportion of C–H bonds and very low proportion of oxygen, lipids store double amount of energy as compared to the same amount of carbohydrates.

Q3. What F.Sanger concluded about insulin?

Ans 1: Sanger's principle conclusion was that the two polypeptide chains of the protein insulin have precise amino acid sequences and by extension that every protein has a unique sequence.

Q4. What are nucleohistones?

Ans 1: The nucleohistones are present in chromosomes. These conjugated proteins are not only of structural, but also are of functional significance. They play an important role in regulation of gene expression.

Q5. What are conjugated molecules? Give one example.

Ans 1: Two different molecules of two different categories usually combine together to form conjugate molecules. For example carbohydrates may combine with proteins to form glycoproteins.

Q6. Define Heat of vaporization, what is heat of vaporization of water?

Ans 1: Water absorbs much heat as it changes from liquid to gas. Heat of vaporization is expressed as calories absorbed per gram of vaporized water.
The specific heat of vaporization of water is 574 kcal/kg.

Q7. Name two reducing sugars, also mention name of most familiar disaccharide.

Ans 1: Reducing sugars are glucose and galactose. The most familiar disaccharide is sucrose.

Q8. Differentiate between glycosidic and peptide bond.

Ans 1: Glycosidic Bond: When two carbohydrates molecules react with each other and form a bond with release of water molecule it is called glycoside bond.

Ans 2: Peptide Bond: When two amino acids react with each other and form a bond with release of water molecule it is called peptide bond.

Q9. Differentiate between amylose and amylopectin starches.

Ans 1: Amylose Starch: Amylose starches have un-branched chains of glucose and are soluble in hot water.

Ans 2: Amylopectin: Amylopectin starches have branched chains and are insoluble in cold and hot water.

Q10. How amino acids differ from each other?

Ans 1:
All the amino acids have an amino group and a carboxyl group attached to the same carbon atom called alpha carbon.
